

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1           1-48. (Cancelled)

1           49. (Currently amended) A method for managing a database system,  
2    wherein the database system includes one or more sensitive users, one or more  
3    normal database administrators, and one or more security officers, comprising:  
4           receiving a command to perform an administrative function involving a  
5    user within the database system;  
6           determining if the user is a sensitive user who is empowered to access  
7    sensitive data in the database system;  
8           if the user is not a sensitive user, and if the command is received from a  
9    normal database administrator for the database system, allowing the  
10    administrative function to proceed;  
11           if the user is a sensitive user, and if the command is received from a  
12    normal database administrator, preventing the normal database administrator from  
13    performing the administrative function involving the sensitive user; and  
14           if the user is a sensitive user, and if the command is received from a  
15    security officer within the group of one or more security officers who is the only  
16    database administrator empowered to perform administrative functions involving  
17    sensitive users, performing the administrative function, wherein the one or more  
18    security officers are the only database administrators empowered to perform  
19    administrative functions involving sensitive users.

1           50. (Original) The method of claim 49, further comprising:

2 receiving a request to perform an operation on a data item in the database  
3 system;

4 if the data item is a sensitive data item containing sensitive information  
5 and if the request is received from a sensitive user who is empowered to access  
6 sensitive data, allowing the operation to proceed if the sensitive user has access  
7 rights to the sensitive data item; and

8 if the data item is a sensitive data item and the request is received from a  
9 user who is not a sensitive user, disallowing the operation.

1 51. (Original) The method of claim 50, wherein if the data item is a  
2 sensitive data item, if the operation is allowed to proceed, and if the operation  
3 involves retrieval of the data item, the method further comprises decrypting the  
4 data item using an encryption key after the data item is retrieved.

1 52. (Original) The method of claim 51, wherein the encryption key is  
2 stored along with a table containing the data item.

1 53. (Original) The method of claim 52, wherein the encryption key is  
2 stored in encrypted form.

1 54. (Original) The method of claim 49, wherein if the user is not a  
2 sensitive user, and if the command to perform the administrative function is  
3 received from a security officer, the method further comprises allowing the  
4 security officer to perform the administrative function on the user.

1 55. (Currently amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a

3 method for managing a database system, wherein the database system includes  
4 one or more sensitive users, one or more normal database administrators, and one  
5 or more security officers, the method comprising:

6 receiving a command to perform an administrative function involving a  
7 user within the database system;

8 determining if the user is a sensitive user who is empowered to access  
9 sensitive data in the database system;

10 if the user is not a sensitive user, and if the command is received from a  
11 normal database administrator for the database system, allowing the  
12 administrative function to proceed;

13 if the user is a sensitive user, and if the command is received from a  
14 normal database administrator, preventing the normal database administrator from  
15 performing the administrative function involving the sensitive user; and

16 if the user is a sensitive user, and if the command is received from a  
17 security officer within the group of one or more security officers~~who is the only~~  
18 ~~database administrator empowered to perform administrative functions involving~~  
19 ~~sensitive users, performing, performing the administrative function, wherein the~~  
20 ~~one or more security officers are the only database administrators empowered to~~  
21 perform administrative functions involving sensitive users.

1 56. (Original) The computer-readable storage medium of claim 55,  
2 wherein the method further comprises:

3 receiving a request to perform an operation on a data item in the database  
4 system;

5 if the data item is a sensitive data item containing sensitive information  
6 and if the request is received from a sensitive user who is empowered to access

7 sensitive data, allowing the operation to proceed if the sensitive user has access  
8 rights to the sensitive data item; and

9 if the data item is a sensitive data item and the request is received from a  
10 user who is not a sensitive user, disallowing the operation.

1 57. (Original) The computer-readable storage medium of claim 56,  
2 wherein if the data item is a sensitive data item, if the operation is allowed to  
3 proceed, and if the operation involves retrieval of the data item, the method  
4 further comprises decrypting the data item using an encryption key after the data  
5 item is retrieved.

1 58. (Original) The computer-readable storage medium of claim 57,  
2 wherein the encryption key is stored along with a table containing the data item.

1 59. (Original) The computer-readable storage medium of claim 58,  
2 wherein the encryption key is stored in encrypted form.

1 60. (Original) The computer-readable storage medium of claim 55,  
2 wherein if the user is not a sensitive user, and if the command to perform the  
3 administrative function is received from a security officer, the method further  
4 comprises allowing the security officer to perform the administrative function on  
5 the user.

1 61. (Currently amended) An apparatus that manages a database system,  
2 wherein the database system includes sensitive users, normal database  
3 administrators, and security officers, comprising:

4           a command-receiving mechanism configured to receive a command to  
5    perform an administrative function involving a user within the database system;  
6           an execution mechanism configured to,  
7                determine if the user is a sensitive user who is empowered  
8                to access sensitive data in the database system;  
9                allow the administrative function to proceed, if the user is  
10              not a sensitive user, and if the command is received from a normal  
11              database administrator for the database system;  
12                prevent a normal database administrator from performing  
13              the administrative function involving the sensitive user, if the user  
14              is a sensitive user, and if the command is received from the normal  
15              database administrator; and to  
16                allow the administrative function to proceed, if the user is a  
17              sensitive user, and if the command is received from a security  
18              officer within the group of one or more security officers~~who is the~~  
19              ~~only database administrator empowered to perform administrative~~  
20              ~~functions involving sensitive users, wherein the one or more~~  
21              ~~security officers are the only database administrators empowered to~~  
22              perform administrative functions involving sensitive users.

1       62. (Previously presented) The apparatus of claim 61,  
2       wherein the command-receiving mechanism is configured to receive a  
3    request to perform an operation on a data item in the database system;  
4       wherein the execution mechanism is configured to,  
5                allow the operation to proceed, if the data item is a  
6              sensitive data item containing sensitive information and if the  
7              request is received from a sensitive user who is empowered to

8                   access sensitive data, and if the sensitive user has access rights to  
9                   the sensitive data item; and to  
10                  disallowing the operation, if the data item is a sensitive data  
11                  item, and the request is received from a user who is not a sensitive  
12                  user.

1                 63.       (Previously presented) The apparatus of claim 62, further  
2                 comprising a decryption mechanism, wherein if the data item is a sensitive data  
3                 item, if the operation is allowed to proceed, and if the operation involves retrieval  
4                 of the data item, the decryption mechanism is configured to decrypt the data item  
5                 using an encryption key after the data item is retrieved

1                 64.       (Previously presented) The apparatus of claim 63, wherein the  
2                 encryption key is stored along with a table containing the data item.

1                 65.       (Previously presented) The apparatus of claim 64, wherein the  
2                 encryption key is stored in encrypted form.

1                 66.       (Previously presented) The apparatus of claim 61, wherein if the  
2                 user is not a sensitive user, and if the command to perform the administrative  
3                 function is received from a security officer, the execution mechanism is  
4                 configured to allow the security officer to perform the administrative function on  
5                 the user.